

REMARKS

Claim 1 is pending, claim 2 is withdrawn from consideration.

In the Office Action, claim 1 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite, and under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Applicant has amended claim 1 to make it definite, by replacing “supported/fixed” with “supported and fixed”.

Regarding the “rigidity factor” recited in claim 1, applicant respectfully directs the Examiner to page 10, lines 9 through 20 of the specification, in which that term is described as meaning a ratio R/C_r of the rigidity R (measured in $\text{kN}\cdot\text{m}/\text{deg}$) of the wheel supporting roller bearing unit, divided by a radial dynamic rated load C_r (measured in N) of the wheel supporting rolling bearing unit. In view of the above description, applicant submits that the rigidity factor is explained and supported by the specification.

Claim 1 was rejected in the Office Action, under 35 U.S.C. 102(e), as being anticipated by Okhuma et al. (U.S. Patent No. 6,217,220). As asserted in the Office Action, all the claimed elements of the present invention are present in the cited reference, and the limitations of friction, axial load, seal ring torque

and rolling torque may be an inherent characteristic of the device described in the reference.

Applicant respectfully disagrees that the claimed values of the axial load to apply a preload to the bearing balls, the rigidity factor of the bearing, the seal ring torque and the rolling torque are inherent in the rolling bearing unit described by Okhuma et al.

The wheel supporting rolling bearing unit recited in claim 1 is designed to have defined numerical values of the claimed parameters in order to obtain a desired high bearing rigidity, as well as a low rolling torque of the bearing. Accordingly, precise values of the preload, rigidity factor, seal ring torque and rolling resistance torque are specified, which result in the desired properties. Specifically, a high rigidity factor assures controllability of the vehicle, a low rolling resistance helps fuel economy, and an effective seal ring prevents contaminants from entering the bearing and thus increases the life of the component.

On the other hand, Okhuma et al. provides a rolling bearing unit that is usable for both driven wheels and non-driven wheels, and thus includes a center through hole 8 extending through the hub 4, which can be used to pass a drive shaft. Seal members such as the caps 27, 28 are used to seal the through hole 8

when not needed. The bearing according to Okhuma et al. is designed to reduce weight, rather than to obtain a desired rigidity factor or torque values. For example, unnecessary material is removed from the hub 4 while tailoring to provide seals to effectively reduce the weight of the unit. (Col. 6, lines 14-18) It is desirable, in order to reduce the weight of the rolling bearing unit, that the inner diameter of the through hole 8 be as large as possible (Col. 7, lines 11-15) and that portions of the hub 4 not necessary for the construction be removed to reduce weight. (Col. 9, lines 9-12).

Accordingly, one skilled in the art would not find the claimed values of high rigidity factor and low rolling torque, as well as the claimed preload and seal ring torque, in a bearing designed specifically for low weight and to be interchangeable between driven wheels and non-driven wheels. This is especially true because, as described in the specification on pages 13 and 28, the rigidity factor is typically increased by using a greater pitch diameter of the balls or greater pitch between the balls, which would also tend to increase the weight of the bearing.

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. (MPEP, section 2112 IV) As further stated in the MPEP, to establish inherency, the extrinsic evidence must make clear that the missing

descriptive matter is necessarily present in the thing described in the reference, and would be so recognized by persons of ordinary skill. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. In the present case, it is not sufficient that the claimed values of rigidity factor and torque may result from the Okhuma et al. bearing, but it is required that they be necessarily present therein.

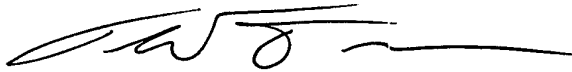
For the reasons discussed above, applicant respectfully submits that claim 1 is not anticipated by Okhuma et al., and is allowable.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #038922.55990US).

Respectfully submitted,

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